

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/093542 A1

- (51) International Patent Classification⁷: A01N 43/16, 63/02
- (21) International Application Number: PCT/CA2004/000606
- (22) International Filing Date: 22 April 2004 (22.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/464,455 22 April 2003 (22.04.2003) US
- (71) Applicant (for all designated States except US): BIOS AGRICULTURE INC. [CA/CA]; 135 Turnbull Court, Cambridge, Ontario N1T 1C6 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHEN, Chunquan [CA/CA]; 43 McLaughlin Street, Cambridge, Ontario N3C 4M4 (CA). CHOLEWA, Ewa, Maria [CA/CA]; 345 Muligan Street, Unit 22, North Bay, Ontario P1A 3S3 (CA). MCIVER, Jhon, David [CA/CA]; 66 Wellington Street North, Kitchener, Ontario N2H 5J9 (CA). SCHULTZ, Birgit, Carolyn [CA/CA]; P.O. Box 1201, Lancaster, Ontario K0C 1N0 (CA). YANG, Yang [CA/CA]; 173 Rue des Saphirs, L'Île Perrot, Québec J7V 9J7 (CA).
- (74) Agents: MANOLAKIS, Emmanuel et al.; Gowling Lafleur Henderson LLP, 1 Place Ville Marie, 37th Floor, Montréal, Québec, Canada, H3B 3P4 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: USE OF LIPO CHITOOLIGOSACCHARIDES TO INITIATE EARLY FLOWERING AND FRUIT DEVELOPMENT IN PLANTS AND RELATED METHODS AND COMPOSITIONS

(57) Abstract: The present invention relates to the use of LCOs in initiating earlier flowering, increased number of buds and flower buds and earlier fruit development in non legume and legume plants, as compared to flowering and fruit development under conditions without use of LCOs, and the enhancement of plant growth and yield associated therewith; to compositions comprising an effective amount of at least one LCO and agriculturally acceptable carriers, associated with earlier flowering, increased bud and flower numbers and earlier initiation of fruit development as compared to conditions without use of LCOs, and with increased growth and plant yield; and to methods using LCOs and compositions of one or more LCOs and agriculturally acceptable carriers, associated with earlier flowering initiation, increased bud and flower numbers and earlier fruit development in both legume and non-legume crop plants as compared to conditions without use of LCOs and associated enhancement of growth and yield.